IN THE SPECIFICATION

Page 1 please replace the paragraph beginning on line 5.

The ~~present invention~~ field relates to a method and a device for suctioning air into ~~the boundary layer at the surface of an aircraft having~~ an air-conditioning system, ~~at whose flow-critical points of the surface, boundary-layer suctioning is applied through small openings~~ of an aircraft.

Page 1 please replace the paragraph beginning on line 9.

Background

Page 1 please replace the paragraph beginning on line 10.

In the technical field of airplane construction and in aircraft construction in general, suctioning of the air layer flowing directly along the aerodynamic surface regions of the aircraft, the boundary layer, may be performed to reduce the aerodynamic frictional resistance during flight. This measure is based on the fluidic law that the aerodynamic frictional resistance of laminar boundary layer flows is significantly smaller than that of turbulent boundary layer flows. Therefore, the frictional resistance of an aircraft may be reduced while cruising by keeping the boundary layer flow at wing and tail assembly surfaces at least partially laminar. One method for delaying the change from laminar to turbulent flow comprises suctioning the boundary layer neighboring the surface of the aircraft into the inside of the aircraft using small openings in the external skin of the aircraft forming the surface. Of course, the air suctioned in this way must be released to the outside again, i.e., discharged to the atmosphere, at suitable, flow-favorable points after passing through ~~the~~ a special duct system. The bleeding of air from the surface and the equipment necessary to do so add a parasitic weight and energy constraints that offset at least a portion of the benefit realized.

Page 1 please replace the paragraph beginning on line 27.

~~Thus, there~~ There is ~~my be~~ a need to keep [[a]] frictional resistance of an aircraft low, and a system for suctioning air that decreases parasitic and energy constraints is highly desirable.

Page 2 please replace the paragraph beginning on line 8.

A disadvantage in principle of all above-mentioned solutions may be that the outlet, as a geometric interference of the aerodynamically shaped surface of the aircraft, always causes losses in the boundary layer flowing past, so that an additional outlet of known devices for suctioning the boundary layer worsens the aerodynamic properties of the aircraft. In order to reduce the resistance generated, the air may be accelerated to a speed which is somewhat above the flow speed at the outlet. Additional energy is necessary for this purpose,[[;]] which is only partially offset by ~~however, further~~ propulsion ~~may be~~ generated by the accelerated air.

Page 2 please replace the paragraph beginning on line 17.

~~The present invention encompasses the technical teaching that to~~ To reduce flow losses, [[the]] an air quantity suctioned from the surface and originating from the boundary layer is fed to [[the]] an air-conditioning system of [[the]] an aircraft[[,]]. ~~via whose outlet the~~ The air quantity suctioned is discharged to the atmosphere jointly with the exhaust air of the air-conditioning system, such that energy losses are reduced.

Page 2 please replace the paragraph beginning on line 23.

~~In principle, the present invention makes use of the presence of an air-conditioning system in larger aircraft. Therefore, the present invention brings together~~ A combination of two aircraft

systems improves the efficiency of the suctioning of air from critical regions of the aircraft. The two system modules of a modern aircraft which until now functioned completely independently of one another, are brought together. The synergistic effect resulting therefrom is expressed in a reduction of aerodynamic flow losses on the aircraft. This is because by introducing the air of the boundary layer suctioning system into the cabin system, i.e., its air-conditioning system, less bleed air must be taken from the power plant than in the related art, which leads to lower power plant losses. In addition, the total quantity of the exhaust air to be discharged may be reduced, since the air quantity suctioned does not have to be released to the outside in addition to the exhaust air from the air-conditioning system. Therefore, it is believed that no additional flow losses arise through the method according to the present invention for suctioning the boundary layer. Furthermore, flow losses which an otherwise typical additional outlet on the surface of the vehicle would cause may be avoided. Overall, it is believed that a flow-energetics total balance may be improved.

Page 3 please replace the paragraph beginning on line 23.

However, it may be considered that this suctioned air quantity may be brought to a pressure suitable to be fed into the cabin system, i.e., to cabin pressure, at a suitable point of the duct system before introduction into the pressurized region of the aircraft fuselage. A compression unit [[is to]] may be introduced into the duct system for this purpose, if necessary.